

What is claimed is:

1. An imprint template for imprint lithography that comprises:

alignment marks embedded in bulk material of the imprint template.

2. The imprint template of claim 1 wherein one or more of the alignment marks are spaced one or more predetermined distances from a surface of the imprint template.

3. The imprint template of claim 1 wherein the one or more predetermined distances is sufficient to enable predetermined radiation to irradiate predetermined regions disposed under a surface of the imprint template.

4. The imprint template of claim 1 wherein the alignment marks are fabricated from a material whose index of refraction is different from that of at least the bulk material of the imprint template surrounding the alignment marks.

5. The imprint template of claim 1 wherein the alignment marks are fabricated from a material whose index of refraction is different from that of at least the bulk material of the imprint template surrounding the alignment marks and that of a material into which an imprint is made.

6. The imprint template of claim 1 wherein the alignment marks are metal.

7. The imprint template of claim 1 wherein a material disposed between the alignments marks and a surface

of the imprint template is the same material used to form other portions of the bulk material of the imprint template.

8. The imprint template of claim 1 wherein the surface of the imprint template includes a release layer.

9. The imprint template of claim 8 wherein the release layer is a fluorocarbon release layer.

10. The imprint template of claim 8 wherein the release layer is a covalently bonded, thin, fluorocarbon film.

11. An imprint template for imprint lithography that comprises:

alignment marks embedded in bulk material of the imprint template, with said bulk material being transparent to radiation having a predetermined wavelength and said alignment marks being spaced one or more predetermined distances from a surface of the imprint template.

12. The imprint template of claim 11 wherein the one or more predetermined distances is sufficient to enable said radiation to irradiate predetermined regions in superimposition with the imprint template.

13. The imprint template of claim 12 wherein the alignment marks are fabricated from a material whose index of refraction is different from that of at least the bulk material of the imprint template surrounding the alignment marks.

14. The imprint template of claim 13 wherein the index of refraction of the material differs from an index of refraction a layer into which an imprint is made.

15. The imprint template of claim 14 wherein the alignment marks are metal.

16. The imprint template of claim 15 wherein the surface of the imprint template includes a release layer.

17. The imprint template of claim 16 wherein the release layer is a fluorocarbon release layer.

18. The imprint template of claim 16 wherein the release layer is a covalently bonded, thin, fluorocarbon film.

19. A method for fabricating an imprint template for imprint lithography that comprises steps of:

- depositing a mask on an imprint template;
- etching alignment features through the mask into the imprint template;
- depositing alignment marks into the alignment features;
- depositing a material over the alignment marks; and
- removing the mask.

20. The method of claim 12 which further comprises treating the surface of the imprint template.